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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,206	02/25/2004	John M. Sebastian	59541US002	3037
32692	7590	12/02/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			DESAI, ANISH P	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 12/02/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/786,206

Applicant(s)

SEBASTIAN ET AL.

Examiner

Anish Desai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 23-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/19/04&07/11/05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-22, drawn to a hydrophilic article, classified in class 428, subclass 343+.
- II. Claims 23-29, drawn to a method of preparing a hydrophilic article, classified in class 427, subclass various.

The inventions are distinct, each from the other because of the following reasons:

1. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case a hydrophilic article can be made by another and materially different process such as an extrusion instead.
2. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
3. During a telephone conversation with Mr. Kent Kokko on 11/15/05 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-22 drawn to a hydrophilic article. Affirmation of this election must be made by applicant in

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replying to this Office action. Claims 23-29 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 13-15, and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Koubek et al. (US 5,532,300) as evidenced by Mallya et al. (US 6,489,387B2).

Koubek et al. teach a novel-water borne laminating adhesives, which are used in articles wherein nonwoven substrates are bonded to second substrates using the laminating adhesive (Column 1, lines 7-9). The articles disclosed in the invention of Koubek et al. are household wipes, disposable diapers, tampons, sanitary napkins etc. (Column 7, lines 64-66). According to Koubek et al., the article includes an absorbent core portion (Column 7, line 47) and the absorbent core portion may comprise a first nonwoven substrate, which is bonded to a second substrate with an adhesive (Column 7, lines 56-59). Additionally, the second substrate can be water permeable (Column 7, lines 33-34) and made of a sheet of thermoplastic polymers (Column 7, line 30-31) or cloth made of cotton fibers (Column 7, line 40). The second substrate reads on the thermoplastic polymer layer as recited in claim 1 and the fibrous polymer layers as recited in claim 2 respectively. Additionally, Koubek et al. teach that it may be desirable to add anionic, amphoteric, or nonionic surfactants to the adhesive at conventional levels (Column 7, lines 13-16).

Regarding claims 13-15, the substrates of Koubek et al. include polyesters and polyolefins such as polyethylene and polypropylene (Column 7, lines 42-44).

With respect to claim 21, Koubek et al. do not explicitly teach that the thermoplastic polymeric substrates (e.g. polyolefin substrates) are initially hydrophobic, however, Koubek et al. is apparently using the same material to form the thermoplastic polymer substrate as Applicant(s). Therefore, it is the examiner's position that the hydrophobic property would be inherently present as the like material has a like property.

With respect to the claim limitation of the migration of the surfactant from the adhesive layer to the surface of the polymeric layer, although Koubek et al. do not explicitly teach the claimed migration of the surfactants from the adhesive layer to the surface of the polymeric layer, it is reasonable to presume that the surfactants used in the adhesive layer of Koubek et al. will inherently migrate to the surface of thermoplastic polymeric substrates of Koubek et al. Mallya et al. (US 6,489,387B2) is relied upon as an evidence to show that it is well known that the surfactants in the adhesive layer are migratory species that with time move towards the surface of the polymeric films to render them water sensitive, and thereby enhance the adhesion between the polymeric film and the adhesive layer. Since the adhesive of Koubek et al. is structurally ^{the same} similar (a polymeric film and an adhesive layer containing the surfactants) as the pressure sensitive adhesive of Mallya, it is not seen that the migration of the surfactants could not have ~~been~~ taken place so as to render the polymeric film hydrophilic and thereby enhance the bonding strength between the adhesive layer and the polymeric film. Note *In re Best*, 195, USPQ at 433, footnote 4 (CCPA 1977) as to providing of this rejection made above under 35 U.S.C. 102.

6. Claims 1,16, 17,19, and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Xie et al. (US 6,503,620B1) as evidenced by Mallya et al. (US 6,489,387B2).

Xie et al. teach multilayer pressure sensitive adhesive (PSA) labels. According to Xie et al., pressure sensitive adhesive products generally comprise a release liner coated with a low surface energy material such as silicone, a PSA layer disposed onto.

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the liner, and a facestock adhesively bonded to the PSA layer (Column 1, lines 14-18).

The facestock can be made from a sheet of plastic, which can be printed with the information or other indicia (Column 1, lines 24-27). The facestock is made of polyolefins (Column 13, lines 27), which reads on the claimed thermoplastic polymer layer. Additionally, Xie et al. teach that the surfactants can be included in the adhesive (Column 13, lines 18-19). Although, Xie et al. do not explicitly teach that the ink used is an aqueous ink, it is the position of the examiner that in the absence of any unexpected results, a skilled artisan can suitably choose to use an aqueous ink because in the final product of Xie et al., the water will be evaporated and only the dried ink would remain.

With respect to the claim limitation of migration of the surfactant from the adhesive layer to the surface of the polymeric layer, although Xie et al. do not explicitly teach the claimed migration of the surfactants from the adhesive layer to the surface of the polymeric layer, it is reasonable to presume that the surfactants used in the adhesive layer of Xie et al. will inherently migrate to the surface of thermoplastic polymeric substrates of Xie et al. Mallya et al. (US 6,489,387B2) is relied upon as an evidence to show that it is well known that the surfactants in the adhesive layer are migratory species that with time move towards the surface of the polymeric films to render them water sensitive, and thereby enhance the adhesion between the polymeric film and the adhesive layer. Since the pressure sensitive adhesive (PSA) labels of Xie et al. is structurally ^{the same} similar (a polymeric film and an adhesive layer containing the surfactants) as the pressure sensitive adhesive labels of Mallya et al., it is not seen that the migration of the surfactants could not have ~~been~~ taken place so as to render the

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polymeric film hydrophilic and thereby enhance the bonding strength between the adhesive layer and the polymeric film. Note *In re Best*, 195, USPQ at 433, footnote 4 (CCPA 1977) as to providing of this rejection made above under 35 U.S.C. 102.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koubek et al. (US 5,532,300) as applied to claims 1-3 and 13-15 above, and further in view of Temperante et al. (US 5,804,625).

The invention of Koubek et al. is previously disclosed. Koubek et al. are silent as to fluorochemical nonionic surfactant with claimed formula of claims 5-7, nonionic surfactant with claimed formula of claims 8 and 9, the amount of surfactant to make thermoplastic polymer hydrophilic as claimed in claim 10, and the amount of surfactant as claimed in claims 11 and 12. However, Temperante et al. teach hydrophilic thermoplastic fibers, web, and fabrics made using nonionic type fluorochemical surfactants (Column 4, lines 21-24). Additionally, Temperante et al. teach articles such as diapers, feminine care products, sanitary napkins etc. made using thermoplastic fibers of their invention (Column 8, lines 33-46).

Regarding claims 5-7, Temperante et al. teach the claimed surfactant formula at column 4, lines 36-67 and at column 5, lines 1-43.

Regarding claims 8 and 9, at column 7, lines 1-11, Temperante et al. teach the examples of surfactants, which reads on the claimed formula of claims 8 and 9.

Regarding claims 10-12, Koubek et al. as applied to the claim 1 teach the claimed invention except that the adhesive layer comprises 5 to 40 wt% of the surfactant. Note that the surfactants tend to migrate to the surface of the film from the adhesive layer and make the film water sensitive (i.e. hydrophilic) as evidenced by Mallya et al. (US 6,489,387B2). Thus, one can optimize the amount of surfactants in the adhesive layer to sufficient level such that the surfactants in the adhesive layer can migrate to the polymeric substrate of Koubek et al. and make the surface of the polymeric substrates water sensitive (hydrophilic). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the amount of surfactant having the amount in the range of instantly claimed invention, motivated by the desire to render the surface of the polymeric substrate hydrophilic. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

8. Claims 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koubek et al. (US 5,532,300) as applied to claim 1 above, and further in view of Johnston et al. (US 5,514,120).

The invention of Koubek et al. is previously disclosed. Koubek et al. are silent as to patterned thermoplastic polymer layer and the thermoplastic polymer layer comprising a microstructure-bearing surface with a plurality of channels that facilitate the directional flow of a liquid disposed thereon. However, Johnston et al. teach liquid

management members for absorbent articles such as meat tray liners, bed pads, baby diapers, sanitary napkins, and adult incontinent pads (Column 1, lines 10-14). The article of Johnston et al. comprises an absorbent core disposed between a topsheet and a backsheet and further comprises a liquid management member that has a microstructure bearing hydrophilic surface with a plurality of channels. When an absorbent article is assembled, the hydrophilic surface is in contact with the absorbent core (Column 2, lines 30-41). The liquid management member is in a sheet form (Column 2, line 37) and promotes rapid directional spreading of liquids (Abstract). The liquid management member is formed using thermoplastic polymers (Column 4, lines 41-42). Thus a skilled artisan would have found it obvious to use the sheet of liquid management member as a second substrate in the absorbent core of the Koubek et al., motivated by the desire to promote the rapid directional spreading of liquids as taught by Johnston et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Desai whose telephone number is 571-272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

APD

Hai Vo

**HAI VO
PRIMARY EXAMINER**